

WHAT IS CLAIMED IS:

1. A sensor for sensing a dynamic state of a movable member in a magnetically actuated motion control device, the magnetically actuated motion control device
5 including a housing defining a cavity in which the movable member is located, the sensor comprising:
a first member secured to the housing of the magnetically actuated motion control device; and
a second member coupled to the movable member, wherein relative position
10 between the first member and the second member indicates the position of the movable member relative to the housing.
2. A system comprising:
A) a washing machine including a housing and a drum, the drum being
15 movable relative to the housing; and
B) at least one magnetically actuated motion control device mounted between the drum and the housing, each at least one motion control device comprising a first member defining a cavity; a second member positionable within the cavity and being movable relative to the first member when positioned therein; at least one of the first and
20 second members including one movable finger; and a magnetic field generator located on another of the first member and the second member, the magnetic field generator causing one of a portion of the first member and a portion of the second member to press against the other of the portion of the first member and the portion of the second member.
- 25 3. A system comprising:
A) a chair including a seat and a base, the seat being movable relative to the base; and
B) at least one magnetically actuated motion control device mounted between the seat and the base each at least one motion control device comprising a first member
30 defining a cavity; a second member positionable within the cavity and being movable relative to the first member when positioned therein; at least one of the first and second members including one movable finger; and a magnetic field generator located on another of the first member and the second member, the magnetic field generator causing one of a

portion of the first member and a portion of the second member to press against the other of the portion of the first member and the portion of the second member.

4. A system comprising:

5 A) a chair including a seat, at least one armrest and a base, the seat and at least one armrest being movable relative to the base; and

B) at least one magnetically actuated motion control device mounted between the at least one armrest seat and the base each at least one motion control device comprising a first member defining a cavity; a second member positionable within the cavity and being movable relative to the first member when positioned therein; at least one of the first and second members including one movable finger; and a magnetic field generator located on another of the first member and the second member, the magnetic field generator causing one of a portion of the first member and a portion of the second member to press against the other.

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5. A system comprising:

A) a chair including a seat, at least one armrest, a backrest and a base, the seat and at least one armrest being movable relative to the base; and

20 B) at least one magnetically actuated motion control device mounted between the backrest seat and each of the at least one armrest, each of the at least one motion control device comprising a first member defining a cavity; a second member positionable within the cavity and being movable relative to the first member when positioned therein; at least one of the first and second members including one movable finger; and a magnetic field generator located on another of the first member and the second member, the magnetic field generator causing one of a portion of the first member and a portion of the second member to press against the other.

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6. A system, comprising:

30 A) a table having a top and a plurality of adjustable legs, each adjustable leg having a first portion and a second portion, the first portion being movable relative to the second portion; and

B) a magnetically actuated motion control device mounted between the first portion and the second portion of at least one of the adjustable legs, the motion control device comprising a first member defining a cavity; a second member positionable within the cavity and being movable relative to the first member when positioned therein; at least one of the first and second members including one movable finger; and a magnetic field generator located on another of the first member and the second member, the magnetic field generator causing one of a portion of the first member and a portion of the second member to press against the other.

7. A system comprising:

A) a first surface and a second surface, the first surface moveable relative to the second surface; and

B) a magnetically actuated motion control device mounted between the first surface and the second surface, the motion control device comprising a first member defining a cavity; a second member positionable within the cavity and being movable relative to the first member when positioned therein; at least one of the first and second members including one movable finger; and a magnetic field generator located on another of the first member and the second member, the magnetic field generator causing one of a portion of the first member and a portion of the second member to press against the other.

8. A system comprising:

A) a wheel connected to a shaft; and

B) a first magnetically actuated motion control device coupled to the shaft, the motion control device comprising a housing defining a cavity; a stator having a center axis and being positionable within the cavity, the stator and housing being relatively rotatable relative to the axis; the housing including one movable finger; and a magnetic field generator located on another of the housing and the stator, the magnetic field generator causing the finger to press against the stator.

9. The system according to claim 8, further comprising:

C) a second magnetically actuated motion control device like said first motion control device, the second magnetically actuated motion control device being coupled to the shaft opposite the first magnetically actuated motion control device; and

5 D) a motor being coupled to the housing of the first magnetically actuated motion control device and to the housing of the second magnetically actuated motion control device such that as the motor turns the housing of the first magnetically actuated motion control device and the housing of the second magnetically actuated motion control device in opposite directions.

10 10. A system comprising:

A) a housing including an opening;

B) a ball located within the housing so that a portion of the ball protrudes through the opening in the housing, the ball being rotatable relative to the housing;

15 C) a first shaft in rolling contact with the ball, the first shaft being coupled to a first magnetically actuated motion control device comprising a housing defining a cavity; a stator having a center axis and being positionable within the cavity, the stator and housing being relatively rotatable relative to the axis; the housing including one movable finger; and a magnetic field generator located on another of the housing and the stator, the magnetic field generator causing the finger to press against the stator; and

20 D) a second shaft positioned substantially perpendicular to the first shaft, the second shaft being in rolling contact with the ball, the second shaft being coupled to a second magnetically actuated motion control device like said first magnetically actuated motion control device.

25 11. A system comprising:

A) a container for holding an irregularly shaped object; and

30 B) a plurality of magnetically actuated motion control devices, each magnetically actuated motion control device having a first end and second end, the first end of each magnetically actuated motion control device having an extension cap, the second end of each magnetically actuated motion control device being mounted to the container.

12. A system comprising:

A) a steering wheel;

B) a steering column coupled to the steering wheel and being movable relative to the steering wheel; and

5 C) a magnetically actuated motion control device, the magnetically actuated motion control device including a first end and a second end, the first end of the magnetically actuated motion control device being mounted to the steering column and the second end being mounted to the steering wheel, the magnetically actuated motion control device comprising: a first member defining a cavity; a second member
10 positionable within the cavity and being movable relative to the first member when positioned therein; at least one of the first and second members including one movable finger; and a magnetic field generator located on another of the first member and the second member, the magnetic field generator causing one of a portion of the first member and a portion of the second member to press against the other of the portion of the first
15 member and the portion of the second member.

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